

ABSTRACT OF THE DISCLOSURE

A multiple instance spanning tree protocol (MI-STP) creates a plurality of active topologies (i.e., loop-free paths) within a computer network. These active topologies may be established through the exchange and processing of multiple instance spanning tree bridge protocol data unit messages (MI-STP BPDUs) by the intermediate network
5 devices within the network. The active topologies are preferably created independently of any virtual local area network (VLAN) designations defined within the network. Once the active topologies are defined, each VLAN designation is then mapped to a single active topology, although multiple VLAN designations are preferably mapped to the same
10 active topology to provide load balancing.